

Patent claims

1. A method for decontaminating a clean-room (1; 101), in which the clean-room (1; 101) is supplied with gaseous H<sub>2</sub>O<sub>2</sub> and H<sub>2</sub>O<sub>2</sub> still present in the clean-room (1; 101) is chemically broken down without catalyst at a later timepoint by supplying at least one gaseous agent which reacts with the H<sub>2</sub>O<sub>2</sub>.
2. The method as claimed in claim 1, characterized in that H<sub>2</sub>O<sub>2</sub> residues in a product situated in the clean-room (1; 101) are subsequently broken down on the product in a targeted manner.
3. The method as claimed in claim 1 or 2, characterized in that the at least one gaseous agent is metered in such a manner that after the chemical breakdown of the H<sub>2</sub>O<sub>2</sub> at most 1 ppm of H<sub>2</sub>O<sub>2</sub> still remains in the clean-room.
4. The method as claimed in one of claims 1 to 3, characterized in that the at least one gaseous agent comprises ammonia.
5. The method as claimed in claim 4, characterized in that the ammonia is metered as a function of the H<sub>2</sub>O<sub>2</sub> in such a manner that the excess of ammonia is at most 500 ppm.
6. The method as claimed in one of claims 1 to 5, characterized in that the at least one gaseous agent comprises hydrazine.
7. The method as claimed in one of claims 1 to 6,

characterized in that the at least one gaseous agent comprises ozone.

8. A system for decontaminating a clean-room (1; 101) having an H<sub>2</sub>O<sub>2</sub> supply device (2; 102) for supplying the clean-room (1; 101) with H<sub>2</sub>O<sub>2</sub>, characterized in that it comprises an H<sub>2</sub>O<sub>2</sub> breakdown device (10; 111-115) for effecting a chemical breakdown of H<sub>2</sub>O<sub>2</sub> without catalyst in the clean-room (1; 101), which comprises means for introducing at least one gaseous agent into the clean-room (1; 101).

9. The system as claimed in claim 8, characterized in that the means for introducing at least one gaseous agent are constructed to introduce ammonia, hydrazine or ozone into the clean-room (1; 101).

10. The system as claimed in claim 8 or 9, characterized in that the means for introducing at least one gaseous agent into the clean-room (1; 101) have a supply vessel (11) filled with gaseous agent, or a generator (111) for generating gaseous agent, a gas line (13; 113) from the supply vessel (11) or generator (111) to the clean-room (1; 101) and a valve (12, 112) for regulating the amount of the gaseous agent flowing through the gas line (13; 113).

11. The system as claimed in one of claims 8 to 10, characterized in that it has a sensor for measuring the concentration of the gaseous agent (4; 104) in the clean-room (1; 101), the measured values of which serve to control the H<sub>2</sub>O<sub>2</sub> breakdown device (10; 111-115).

12. The system as claimed in one of claims 8 to 11, characterized in that it has a sensor for measuring the H<sub>2</sub>O<sub>2</sub> concentration (5; 105) in the clean-room (1; 101), the measured values of which serve to control the H<sub>2</sub>O<sub>2</sub> breakdown device (10; 111-115).

13. The system as claimed in one of claims 8 to 12, characterized in that the H<sub>2</sub>O<sub>2</sub> breakdown device has means for generating UV light in the clean-room (1; 101).

14. The system as claimed in one of claims 8 to 13, characterized in that the H<sub>2</sub>O<sub>2</sub> breakdown device (111-115) and the H<sub>2</sub>O<sub>2</sub> supply device (102) are integrated into a periphery (103) of the clean-room (101).

15. An H<sub>2</sub>O<sub>2</sub> breakdown device (10; 111-115) for a system for decontaminating a clean-room (1; 101) according to one of claims 8 to 14.